

REMARKS

In view of the following remarks, reconsideration is respectfully requested.

Claims 1-3, 5, 6, and 8 are rejected under 35 U.S.C. § 102(b) as being anticipated by Birch et al. (U.S. 5,757,416). Further, claims 4, 7, and 9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Birch. These rejections are respectfully traversed for the reasons discussed below.

A brief description of the present invention, as recited in independent claim 1 and 5, will now be provided with reference to various portions of the present application. However, reference to any specific portions of the present application is provided only for illustrative purposes, and is not intended to otherwise limit the scope of the claims to any particular embodiment.

Independent claims 1 and 5 recite a frame generating method including, in part, inserting a synchronous word (claim 1) or words (claim 5) into data at a position, wherein the position is determined based on a noise cycle of a transmission line. Further, in the context of the specification and the drawings, the term “noise cycle” is identified by the variable “t” which is a measurement of time (e.g., duration) between the occurrence of cyclical noises on a transmission line (see Figs. 4, 5, and 6, and paragraph [0058] which states “cyclical noises 7 occur every noise cycle ‘t’”). Accordingly, the invention of claims 1 and 5 inserts a synchronous word at a position, wherein the position is determined based on the time (e.g., duration) between the cyclical noises. The Birch reference fails to disclose or suggest the above-mentioned features of independent claims 1 and 5.

Rather, the Birch reference teaches inserting synchronization words according to noise characteristics (i.e., noise levels) of a particular transmission channel (see claim 20 on col. 7 as cited in the Office Action of June 26, 2007). Specifically, Birch teaches that an encoding scheme is determined based on noise characteristics such that in a highly noisy environment (i.e., a high noise level) a specific type of encoding is utilized in order to provide robustness under high Gaussian noise conditions (i.e., high noise levels, see col. 13, lines 31-40, and col. 19, lines 46-48). Accordingly, Birch teaches that specific encoding schemes are utilized based on a level of noise on a transmission line (i.e., noise characteristics are characteristics relating to the level of noise, such as “highly noisy

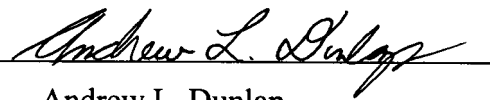
environment” and “high Gaussian noise”). Thus, the following differences between the present invention as recited in independent claims 1 and 5 and the Birch reference become evident.

In view of the above, it is clear that Birch’s disclosure of determining an encoding scheme based on a level of noise (i.e., noise characteristics as defined by Birch) on a transmission line does not disclose or suggest inserting a synchronous word at a position, wherein the position is determined based on the time (e.g., duration) between the cyclical noises (i.e., noise cycle), as recited in claims 1 and 5. Birch’s disclosure of determining an encoding scheme based on a level of the noise itself is not the same as or even similar to determining a position based on the timing/duration of cyclical noises, because the timing of cyclical noises is not related to the level of the noise itself, but is rather related to the timing/duration of the occurrence of the noise, regardless of the noise levels.

In view of the above, it is respectfully submitted that the Birch reference does not anticipate the invention as recited in independent claims 1 and 5. Furthermore, Birch does not suggest the above-discussed limitations of independent claims 1 and 5. Therefore, it would not have been obvious to one of ordinary skill in the art to modify the Birch reference so as to obtain the invention of independent claims 1 and 5. Accordingly, it is respectfully submitted that claims 1-9 are clearly allowable over Birch.

In view of the above amendments and remarks, it is submitted that the present application is in condition for allowance and an early notification thereof is earnestly requested. The Examiner is invited to contact the undersigned by telephone to resolve any remaining issues.

Respectfully submitted,
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